




## Safe Operating Procedures

SOPs are designed to help employees identify hazards, limitations, PPE, & safety training for specific equipment/tasks. Environmental Health and Safety, 414 J.M. Smith Hall

	<b>Equipment/ Task Name</b>	Chainsaw Equipment
	<b>Departments Impacted</b>	<ul style="list-style-type: none"> <li>Physical Plant (Landscape)</li> <li>Biology (Meeman Field Station Caretaker)</li> </ul>
	<b>Purpose</b>	A chainsaw is a portable, mechanical saw which cuts with a set of teeth attached to a rotating chain that runs along a guide bar. It is used in activities such as tree felling, limbing, bucking, and pruning.
<b>TASK</b>	<b>HAZARDS</b>	<b>CONTROLS</b>
1. Prepare work area	Tripping hazards	Clear brush and debris, visually examine area to establish secure footing.
	Injuries to bystanders and co-workers	Warn people in or near area; utilize barricades, cones, or caution tape to keep bystanders a safe distance from job; consider the shape and lean of tree; consider wind force; plan escape route from work area in case of danger.
2. Start saw	Cutting injuries to hands, feet, body parts	Start saw on ground with foot on rear handle, left hand firmly gripping saw grip, right hand pulling starter cord. Maintain secure footing. Wear gloves, hard hat, chaps, and sturdy work boots. Make sure co-workers are clear of saw.
	Flying debris entering eyes	Wear safety glasses with side protection, face shield.
	Hearing loss	Wear ear plugs or ear muffs.
3. Cutting wood	Cutting injuries to hands, feet, body parts	Maintain proper stance and hold; keep left arm and elbow straight, two hands on saw, body to the left of saw; maintain secure footing; never cut above shoulder level; cut with the underside of saw blade as much as possible. Stop engine for all cleaning, refueling, adjustments, and repair of saw.
	Log or limb rolling into body	Stand upslope so cut pieces roll away from feet, legs, and body.
	Kickback, blade bucking away from wood	Make sure blade is moving before making contact with material; use wedge when necessary to keep blade from binding; make sure solid objects like rocks or concrete do not contact blade; use 90-degree notch and back cut techniques on standing trees >5 inches in diameter.
	Flying debris entering eyes	Wear safety glasses with side protection, face shield.
	Inhalation of dust/particles generated during machine operation, exhaust fumes	Make sure there is appropriate natural ventilation and wear disposable respirators.



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	Head trauma from falling objects	Practice situational awareness. Never cut a tree limb while standing under the tree. Make sure that nothing is resting on top of the wood before cutting. Always wear a hard hat.		
	Muscle strain, fatigue	Utilize proper body position; stretch, take frequent breaks to maintain alertness; stay hydrated.		
	Injuries to bystanders and co-workers	Maintain awareness of work areas; check barricades; do not approach operators; shout warnings to co-workers and bystanders.		
	Hearing loss	Wear ear plugs or ear muffs.		
4. Carrying saw	Cutting hands, feet, body	Idle engine when carrying less than 100 feet; stop engine when carrying saw more than 100 feet; never carry saw over shoulder.		
<b>Required Personal Protective Equipment</b>		<b>Required Training</b>		
<ul style="list-style-type: none"> <li>• Protective clothing (chaps, long pants, long sleeve shirt, and visibility vest when working near traffic)</li> <li>• Hearing protection</li> <li>• Safety glasses</li> <li>• N95 respirator</li> <li>• Hard hat</li> <li>• Gloves (Kevlar or leather)</li> <li>• Safety Boots</li> </ul>		<ul style="list-style-type: none"> <li>• Operation of chainsaw</li> <li>• Personal Protective Equipment</li> </ul>		
<b>Equipment Procedures/Requirements</b>				
<ol style="list-style-type: none"> <li>1. Operate equipment in strict accordance with Manufacturer's instructions and in accordance with OSHA 29 CFR 1910.212 and 1910.213.</li> <li>2. Only authorized users can operate equipment.</li> <li>3. One or more methods of machine guarding shall be provided to protect the operator and others in the area from hazards such as those created by point of operation, ingoing nip points, rotating parts, flying chips and sparks.</li> <li>4. Report any observed defect or safety hazard to your supervisor immediately.</li> <li>5. Keep all guards and shields in place.</li> <li>6. Keep hands, hair and clothing away from moving parts.</li> <li>7. User must have had OSHA approved training prior to operating any chain saw.</li> </ol>				
<b>Additional Precautions for fuel powered engines</b>				
<ol style="list-style-type: none"> <li>1. Always operate in an open well-ventilated area or vent the engine exhaust directly outdoors.</li> <li>2. Never fuel the engine while running or in the presence of an open flame.</li> <li>3. Wipe spilled fuel immediately and wait for fumes to disperse before starting the engine.</li> <li>4. Never remove the radiator pressure cap from liquid cooled engines while they are hot to prevent scalding.</li> <li>5. Stop the engine before performing any maintenance or troubleshooting.</li> <li>6. The ignition system should be disabled to prevent accidental start of the engine.</li> </ol>				
<b>SOP ID</b>	<b>G002</b>	<b>Related Documents</b>	<b>Creation/Revision Date</b>	<b>07/20/2018</b>

Suggestions, questions, or comments? Please contact EH&S